

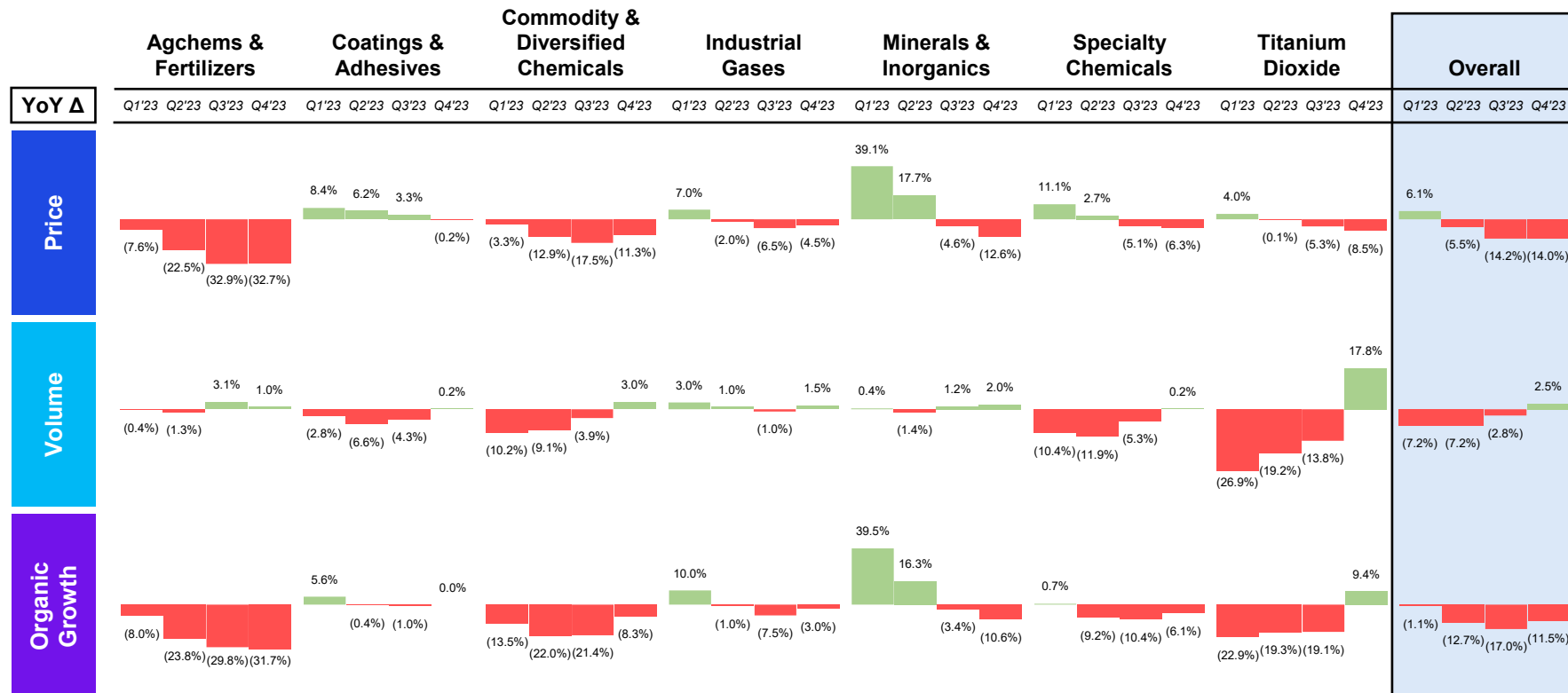
Chemicals & Specialty Materials

Q4 2023 Price & Volume Trends by Sub-sector

Chemicals & Specialty Materials Q4 2023 Earnings Summary

Fourth quarter in a row of organic sales declines

- The Chemicals industry has now seen four straight quarters of organic sales declines
- Prices declined across the board and the sector has now given up most (if not all) of the price gains achieved in 2022 with organic pricing down **(14.0%)** during Q4 2023
- Volume trends remain weak, however, we did see a modest uptick of **2.5%** (with TiO2 skewing the numbers higher)
 - Cynics might suggest that things were so bad in Q4 2022 that it's an easier comp or that prices have fallen so low that it was bound to stimulate demand
 - We take (or hope for) the optimistic view that the sector has hit bottom and will revert to modest and sustainable growth... time will tell



Sources: Capital IQ, Company filings



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Agchems & Fertilizers

- In Q4 2023, the Agchems & Fertilizers sub-sector experienced an average organic revenue decline of (31.7%) year-over-year
- Price and volume patterns continued to follow the same trend as noted in previous quarters, as prices decreased by (32.7%) while volumes increased by 1.0% over the prior year's comparable period
 - On the volume front, there's a clear bifurcation between the fertilizer producers (who generally enjoyed strong volume growth on the back of steep price declines) and agchem suppliers
- Lower natural gas costs and crop prices continued to exert pressure on fertilizer prices, resulting in a downwards trend over the past year
- Compared to Q4 2022, there was an increase in UAN and ammonia sales volumes mainly because of a surge in demand for nitrogen fertilizers during the fall
 - This increase was influenced by favorable weather conditions and a decrease in fertilizer prices compared to the last-two years
- The nitrogen fertilizer industry faces ongoing uncertainty and volatility given geopolitical issues in major production regions (e.g. the Middle East and Russia / Ukraine)

Inventories were below average entering the year and net imports of nitrogen to the region are not making up the difference. The cold snap we experienced in North America during January has exacerbated this situation. We believe that there has been significant volume of domestic nitrogen production lost due to weather-related shutdowns across the region supply base.

Looking ahead, forward energy curve suggests continued favorable energy spreads between low cost in North American production and high-cost production in Europe and Asia. We believe this will support sustained margin opportunities for our low-cost manufacturing asset base.

- Bert A. Frost, Executive Vice President of Sales, CF Industries

With on-farm demand remaining overall strong, the crop protection industry is still going through what we would refer to as a rebalance as it recovers from the destocking that had a challenging and abrupt impact on the market in 2023. While we expect this to continue to normalize throughout the first half of 2024, we're seeing signs of improvement, which gives us more confidence in what the crop protection market should look like as we enter the second half of this year.

- Charles Victor Magro, CEO, Corteva

Sources: Capital IQ, Company filings



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Agchems & Fertilizers (cont'd)

Company Name	Q1 2023 (YoY)			Q2 2023 (YoY)			Q3 2023 (YoY)			Q4 2023 (YoY)		
	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total
CF Industries Holdings	(28.5%)	(1.9%)	(30.4%)	(48.6%)	2.0%	(46.6%)	(51.9%)	7.8%	(44.1%)	(50.6%)	10.9%	(39.7%)
Ammonia	(26.1%)	(10.3%)	(36.4%)	(53.7%)	1.7%	(52.0%)	(74.5%)	18.8%	(55.7%)	(58.7%)	20.3%	(38.4%)
Granular Urea	(33.8%)	20.7%	(13.1%)	(43.1%)	(2.9%)	(46.0%)	(31.9%)	(15.8%)	(47.7%)	(35.7%)	0.5%	(35.2%)
Urea Ammonium Nitrate (UAN)	(27.7%)	(9.1%)	(36.8%)	(49.5%)	11.3%	(38.2%)	(59.7%)	18.9%	(40.8%)	(57.7%)	7.2%	(50.5%)
Ammonium Nitrate (AN)	(18.4%)	(12.6%)	(31.0%)	(51.4%)	(15.4%)	(66.8%)	(50.8%)	14.1%	(36.7%)	(49.3%)	12.8%	(36.5%)
Diesel Exhaust Fluid, Urea Liquor and Nitric Acid	(30.3%)	(3.9%)	(34.2%)	(35.4%)	0.5%	(34.9%)	(41.4%)	11.1%	(30.3%)	(30.5%)	19.2%	(11.3%)
Corteva	14.3%	(4.3%)	10.0%	8.7%	(12.6%)	(3.9%)	1.6%	(14.8%)	(13.2%)	0.7%	(8.9%)	(8.2%)
Seed	17.0%	(7.0%)	10.0%	12.0%	(3.0%)	9.0%	14.0%	(12.0%)	2.0%	7.0%	(10.0%)	(3.0%)
Crop Protection	11.0%	(1.0%)	10.0%	3.0%	(29.0%)	(26.0%)	(4.0%)	(16.0%)	(20.0%)	(4.0%)	(8.0%)	(12.0%)
CVR Partners	(8.6%)	9.2%	0.6%	(38.2%)	22.5%	(15.7%)	(78.0%)	54.9%	(23.2%)	(61.1%)	24.4%	(36.7%)
Ammonia	(15.8%)	5.0%	(10.8%)	(40.2%)	51.9%	11.7%	(129.5%)	129.6%	0.1%	(66.6%)	27.3%	(39.3%)
Urea Ammonium Nitrate (UAN)	(7.9%)	11.5%	3.6%	(43.1%)	14.6%	(28.5%)	(68.3%)	40.7%	(27.6%)	(57.7%)	22.6%	(35.1%)
FMC Corporation	7.0%	(3.0%)	4.0%	3.0%	(31.0%)	(28.0%)	(3.0%)	(26.0%)	(29.0%)	(5.0%)	(25.0%)	(30.0%)
LSB Industries	(18.7%)	6.3%	(12.4%)	(43.9%)	10.1%	(33.8%)	(52.1%)	15.4%	(36.7%)	(48.0%)	2.7%	(45.3%)
Ammonium Nitrate (AN) & Nitric Acid	(4.8%)	(15.1%)	(19.9%)	(27.4%)	(0.0%)	(27.4%)	(23.7%)	(4.1%)	(27.8%)	(31.0%)	(21.0%)	(52.0%)
Urea Ammonium Nitrate (UAN)	(31.5%)	12.9%	(18.6%)	(48.5%)	(3.5%)	(52.0%)	(46.8%)	2.3%	(44.5%)	(52.0%)	22.0%	(30.0%)
Ammonia	(26.8%)	46.6%	19.8%	(68.5%)	35.1%	(33.4%)	(108.9%)	57.7%	(51.2%)	(62.0%)	13.0%	(49.0%)
Nutrien	(12.9%)	(3.8%)	(16.7%)	(18.3%)	(0.1%)	(18.4%)	(29.9%)	3.9%	(26.0%)	(55.7%)	18.4%	(37.3%)
Potash	(37.5%)	(13.4%)	(50.9%)	(58.6%)	(8.8%)	(67.4%)	(74.4%)	23.0%	(51.4%)	(69.8%)	26.2%	(43.6%)
Retail	Increase	Decrease	(11.4%)	Decrease	Increase	(3.1%)	Decrease	Increase	(12.3%)	Decrease	Increase	(14.3%)
Phosphate	(5.9%)	(15.8%)	(21.7%)	(20.9%)	5.4%	(15.5%)	(36.4%)	3.8%	(32.6%)	(31.6%)	41.8%	10.2%
Nitrogen	(23.2%)	1.4%	(21.8%)	(48.1%)	9.9%	(38.2%)	(46.5%)	(10.9%)	(57.4%)	(50.0%)	5.3%	(44.7%)
The Mosaic Company	(21.5%)	11.2%	(10.3%)	(43.8%)	4.3%	(39.5%)	(47.8%)	6.5%	(41.3%)	(39.1%)	4.2%	(34.9%)
Phosphates	(15.9%)	10.5%	(5.4%)	(36.4%)	14.7%	(21.7%)	(34.2%)	0.0%	(34.2%)	(23.5%)	0.0%	(23.5%)
Mosaic Fertilizantes	(20.9%)	14.2%	(6.7%)	(38.9%)	2.8%	(36.1%)	(43.5%)	10.7%	(32.8%)	(25.2%)	(12.0%)	(37.2%)
Potash	(27.7%)	6.6%	(21.1%)	(51.9%)	(6.1%)	(58.0%)	(62.9%)	4.8%	(58.1%)	(79.6%)	36.8%	(42.8%)
The Scotts Miracle-Gro Company	8.0%	(17.0%)	(9.0%)	1.0%	(6.0%)	(5.0%)	(2.0%)	(23.0%)	(25.0%)	(3.0%)	(19.0%)	(22.0%)
U.S. Consumer	9.0%	(11.0%)	(2.0%)	0.0%	1.0%	1.0%	(3.0%)	(30.0%)	(33.0%)	(4.0%)	(13.0%)	(17.0%)
Hawthorne	6.0%	(60.0%)	(54.0%)	(1.0%)	(39.0%)	(40.0%)	(1.0%)	(13.0%)	(14.0%)	(2.0%)	(38.0%)	(40.0%)
Agchems & Fertilizers Average	(7.6%)	(0.4%)	(8.0%)	(22.5%)	(1.3%)	(23.8%)	(32.9%)	3.1%	(29.8%)	(32.7%)	1.0%	(31.7%)

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data

Sources: Capital IQ, Company filings



Coatings & Adhesives

- In Q4 2023, organic revenue growth of the Coatings & Adhesives sub-sector remained flat year-over-year
 - The sub-sector saw an average decrease of (0.2%) in prices, offset by an increase in volumes of 0.2% year-over-year
- Volumes stayed relatively flat in Q4 2023, impacted by the following factors:
 - Certain areas, such as Axalta's Mobility Coatings, showed strong volume growth (driven by a rebound in auto production from historic lows), however, most other areas, especially those tied to new construction, showed some weakness
- Pricing was marginally lower year-over-year, primarily driven by the pass-through of lower raw material costs

Company Name	Q1 2023 (YoY)			Q2 2023 (YoY)			Q3 2023 (YoY)			Q4 2023 (YoY)		
	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total
Axalta Coating Systems	9.4%	2.7%	12.1%	6.8%	(3.7%)	3.1%	6.3%	(2.8%)	3.5%	0.9%	1.7%	2.6%
Performance Coatings	10.3%	(3.4%)	6.9%	8.5%	(11.1%)	(2.6%)	6.3%	(6.6%)	(0.3%)	3.2%	(1.8%)	1.4%
Mobility Coatings	7.2%	16.5%	23.7%	2.7%	12.8%	15.5%	6.2%	5.1%	11.3%	(3.6%)	8.7%	5.1%
H.B. Fuller Company	8.3%	(10.8%)	(2.5%)	5.9%	(14.2%)	(8.3%)	0.6%	(8.0%)	(7.4%)	(3.4%)	(0.1%)	(3.5%)
PPG Industries	8.0%	(3.0%)	5.0%	6.0%	(2.0%)	4.0%	3.0%	(2.0%)	1.0%	2.0%	(1.0%)	1.0%
Performance Coatings	9.0%	(3.0%)	6.0%	6.0%	(3.0%)	3.0%	3.0%	0.0%	3.0%	3.0%	(1.0%)	2.0%
Industrial Coatings	7.0%	(3.0%)	4.0%	5.0%	(1.0%)	4.0%	2.0%	(4.0%)	(2.0%)	0.0%	0.0%	0.0%
The Sherwin-Williams Company	8.1%	0.0%	8.1%	+MSD%	Flat	+MSD%	+LSD%	-LSD%	Flat	Flat	Flat	Flat
Paint Stores	Increase	+HSD%	14.8%	+MSD%	+MSD%	+HSD%	+LSD%	Flat	+LSD%	Flat	+LSD%	+LSD%
Consumer Brands	Increase	-MSD%	4.1%	+MSD%	Flat	+MSD%	+MSD%	-MSD%	-LSD%	Flat	-MSD%	-MSD%
Performance Coatings	+Low-Teen%	-Low-Teen%	3.4%	+MSD%	-HSD%	Decrease	+LSD%	-HSD%	-MSD%	Flat	Decrease	Decrease
Coatings & Adhesives Average	8.4%	(2.8%)	5.6%	6.2%	(6.6%)	(0.4%)	3.3%	(4.3%)	(1.0%)	(0.2%)	0.2%	0.0%

From an overall global economic standpoint, conditions remain subdued. While real GDP measures have been slightly positive, sentiment, particularly within the manufacturing sector, remains weak and cautious. As a result, we continue to plan for a mild manufacturing recession in fiscal 2024, and our expectations for the year ahead reflect this scenario.

- Celeste Beeks Mastin, President & CEO, H.B. Fuller Company

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data
Sources: Capital IQ, Company filings



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Commodity & Diversified Chemicals

- In Q4 2023, the Commodity & Diversified Chemicals sub-sector experienced an average revenue decline of (8.3%) year-over-year
 - The sub-sector reported an average decrease of (11.3%) in prices which was partially offset by an increase of 3.0% in volumes
- Lower average prices were primarily driven by deflationary raw material pass-through as well as unfavorable supply and demand dynamics
 - Declining natural gas, electrical power and oil costs coupled with a more stable global nitrogen supply environment negatively impacted product prices
- Higher volumes in Asia, particularly China, helped volumes despite continued weakness in certain end markets such as building and construction
 - On a positive note, companies noted reduced levels of destocking in the building and construction, agriculture and industrial end markets

Building construction, I think, is probably still the most challenged. It was tough last year. The expectation is it's going to be tough this year, maybe even slightly down in primary demand. And -- but again, I think most of the destocking in that market has played out. By the end of the fourth quarter, there may be little pieces and parts into the first quarter, so you still get that lack of destocking lift in coatings and interlayers across AFP¹ and AM².

- Mark J. Costa, President & CEO, Eastman Chemical

In addition, the destocking that began in late 2022 has largely run its course, resulting in low inventory levels throughout most of our value chains. In the U.S., industrial activity continues to be moderate. And December industrial production increased 1% year-over-year and chemical railcar loadings are up 9.6% in January versus the prior year. U.S. consumer spending has remained resilient with retail trade sales of 4.8% in December. We're also encouraged by our recent forecast from the American Coatings Association, which expects market demand to grow approximately 3% in 2024 following three consecutive years of declines.

- Jeffrey L. Tate, CFO, Dow

Sources: Capital IQ, Company filings

(1) Additives & Functional Products

(2) Advanced Materials



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Commodity & Diversified Chemicals (cont'd)

Company Name	Q1 2023 (YoY)			Q2 2023 (YoY)			Q3 2023 (YoY)			Q4 2023 (YoY)		
	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total
AdvanSix	(10.0%)	(9.0%)	(19.0%)	(25.0%)	(2.0%)	(27.0%)	(32.0%)	(1.0%)	(33.0%)	(21.0%)	16.0%	(5.0%)
Cabot Corporation	4.7%	(5.9%)	(1.2%)	(4.9%)	(8.0%)	(12.9%)		Decrease	Decrease	(5.2%)	3.8%	(1.4%)
Performance Chemicals	0.0%	(6.3%)	(6.3%)	(7.2%)	(8.5%)	(15.7%)	Decrease	Decrease	Decrease	(7.7%)	6.6%	(1.1%)
Reinforcement Materials	14.2%	(6.3%)	7.9%	(4.0%)	(8.1%)	(12.1%)	Increase	(2.0%)	Increase	(4.2%)	2.5%	(1.7%)
Celanese Corporation	(8.0%)	(8.6%)	(16.6%)	(15.0%)	(6.7%)	(21.7%)	(16.0%)	1.7%	(14.3%)	(3.0%)	(3.0%)	(6.0%)
Engineered Materials	2.0%	(7.7%)	(5.7%)	(8.0%)	(14.0%)	(22.0%)	(12.0%)	(0.2%)	(12.2%)	(3.0%)	(5.0%)	(8.0%)
Acetyl Chain	(13.0%)	(9.0%)	(22.0%)	(19.0%)	(2.0%)	(21.0%)	(18.0%)	4.0%	(14.0%)	(3.0%)	0.0%	(3.0%)
Dow	(10.0%)	(11.0%)	(21.0%)	(18.0%)	(8.0%)	(26.0%)	(18.0%)	(6.0%)	(24.0%)	(13.0%)	2.0%	(11.0%)
Performance Materials & Coatings	(12.0%)	(11.0%)	(23.0%)	(16.0%)	(10.0%)	(26.0%)	(17.0%)	(3.0%)	(20.0%)	(12.0%)	3.0%	(9.0%)
Packaging & Specialty Plastics	(11.0%)	(8.0%)	(19.0%)	(21.0%)	(7.0%)	(28.0%)	(20.0%)	(7.0%)	(27.0%)	(11.0%)	3.0%	(8.0%)
Industrial Intermediates & Infrastructure	(6.0%)	(17.0%)	(23.0%)	(15.0%)	(11.0%)	(26.0%)	(17.0%)	(7.0%)	(24.0%)	(17.0%)	(2.0%)	(19.0%)
Eastman Chemical Company	5.8%	(9.5%)	(3.7%)	(1.0%)	(15.0%)	(16.0%)	(4.8%)	(11.9%)	(16.7%)	(5.0%)	(2.0%)	(7.0%)
Advanced Materials	10.0%	(6.0%)	4.0%	3.0%	(15.0%)	(12.0%)	1.0%	(17.0%)	(16.0%)	1.0%	(5.0%)	(4.0%)
Additives & Functional Products	4.0%	(15.0%)	(11.0%)	(5.0%)	(14.0%)	(19.0%)	(9.0%)	(18.0%)	(27.0%)	(10.0%)	(6.0%)	(16.0%)
Chemical Intermediates	(5.0%)	(12.0%)	(17.0%)	(11.0%)	(22.0%)	(33.0%)	(19.0%)	(2.0%)	(21.0%)	(16.0%)	7.0%	(9.0%)
Fibers	40.0%	3.0%	43.0%	32.0%	1.0%	33.0%	28.0%	2.0%	30.0%	13.0%	(4.0%)	9.0%
Huntsman Corporation	(0.3%)	(23.3%)	(23.6%)	(7.9%)	(16.2%)	(24.1%)	(11.6%)	(11.0%)	(22.6%)	(13.5%)	(1.7%)	(15.2%)
Polyurethanes	(2.0%)	(21.0%)	(23.0%)	(10.0%)	(10.0%)	(20.0%)	(14.0%)	(4.0%)	(18.0%)	(15.0%)	(1.0%)	(16.0%)
Performance Products	0.0%	(31.0%)	(31.0%)	(8.0%)	(31.0%)	(39.0%)	(12.0%)	(26.0%)	(38.0%)	(17.0%)	(1.0%)	(18.0%)
Advanced Materials	6.0%	(21.0%)	(15.0%)	1.0%	(19.0%)	(18.0%)	(2.0%)	(18.0%)	(20.0%)	(4.0%)	(5.0%)	(9.0%)
Methanex Corporation	(12.7%)	1.7%	(11.0%)	(19.9%)	3.3%	(16.6%)	(19.9%)	1.6%	(18.3%)	(14.8%)	8.1%	(6.7%)
Olin Corporation		Decrease		Decrease	Decrease	Decrease	Decrease	Decrease	Decrease	Decrease	Decrease	Decrease
Chlor Alkali Products and Vinyls	Increase	(12.0%)	Decrease	Increase	Decrease	Decrease	Decrease	Decrease	Decrease	Decrease	Decrease	Decrease
Epoxy	Decrease	Decrease	Decrease	(14.3%)	(15.4%)	(29.7%)	(23.4%)	(27.3%)	(50.7%)	Decrease	Decrease	Decrease
Winchester		Decrease	(14.1%)	Decrease	(27.6%)	Decrease	Decrease	Decrease	Decrease	Decrease	Increase	Increase
Orion Engineered Carbons	12.8%	(7.8%)	5.0%	(5.6%)	(9.6%)	(15.2%)	(14.9%)	0.8%	(14.1%)	(5.4%)	6.7%	1.3%
Rubber Carbon Black	14.1%	(3.8%)	10.3%	(4.5%)	(9.4%)	(13.9%)	(12.5%)	(3.0%)	(15.5%)	(0.6%)	1.7%	1.1%
Specialty	10.4%	(19.2%)	(8.8%)	(7.6%)	(10.2%)	(17.8%)	(25.9%)	14.5%	(11.4%)	(15.9%)	17.6%	1.7%
Trinseo	(7.0%)	(20.0%)	(27.0%)	(17.0%)	(16.0%)	(33.0%)	(20.0%)	(8.0%)	(28.0%)	(10.0%)	(7.0%)	(17.0%)
Westlake Corporation	(8.2%)	(9.1%)	(17.3%)	(14.9%)	(12.6%)	(27.5%)	(20.2%)	(1.0%)	(21.2%)	(21.7%)	7.4%	(14.3%)
Performance and Essential Materials	(12.9%)	(4.2%)	(17.1%)	(20.9%)	(10.3%)	(31.2%)	(25.9%)	(1.4%)	(27.3%)	(26.5%)	6.1%	(20.4%)
Housing and Infrastructure Products	2.8%	(20.6%)	(17.8%)	(1.4%)	(17.7%)	(19.1%)	(7.9%)	(0.2%)	(8.1%)	(9.7%)	10.6%	0.9%
Commodity & Diversified Chemicals Average	(3.3%)	(10.2%)	(13.5%)	(12.9%)	(9.1%)	(22.0%)	(17.5%)	(3.9%)	(21.4%)	(11.3%)	3.0%	(8.3%)

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data

Sources: Capital IQ, Company filings



Industrial Gases

- In Q4 2023, the Industrial Gases sub-sector experienced average organic revenue decline of (3.0%) year-over-year
- The decline was largely driven by Air Product's (10.0%) price decline
 - The Company called out decreasing natural gas prices in the Americas and Europe which resulted in lower energy cost pass-through as a key factor in price declines
- Linde, on the other hand, achieved 1.0% in price growth driven by inflation, pricing actions and broad productivity initiatives
- Volumes showed a marginal increase of 1.5%
 - Despite weaker helium demand, the strong demand for hydrogen boosted Air Product's volumes year-over-year
 - Linde's flat volumes were largely due to softer base volumes, primarily in EMEA

Company Name	Q1 2023 (YoY)			Q2 2023 (YoY)			Q3 2023 (YoY)			Q4 2023 (YoY)		
	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total
Air Products and Chemicals	7.0%	6.0%	13.0%	(7.0%)	3.0%	(4.0%)	(12.0%)	0.0%	(12.0%)	(10.0%)	3.0%	(7.0%)
Linde	7.0%	0.0%	7.0%	3.0%	(1.0%)	2.0%	(1.0%)	(2.0%)	(3.0%)	1.0%	0.0%	1.0%
Industrial Gases Average	7.0%	3.0%	10.0%	(2.0%)	1.0%	(1.0%)	(6.5%)	(1.0%)	(7.5%)	(4.5%)	1.5%	(3.0%)

The best proxy for our pricing is globally weighted inflation. And that seems to track reasonably well. We've seen that over many years now. So even though we are seeing disinflation or lower inflation in many parts of the world, my expectation is this year, despite that, we'll probably produce higher pricing levels than we've seen for the last decade.

- Sanjiv Lamba, CEO & Director, Linde

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data
Sources: Capital IQ, Company filings



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Minerals & Inorganics

- Organic sales in the Minerals & Inorganics sub-sector saw substantial decline, decreasing by (10.6%)
 - The sub-sector saw an average decrease of (12.6%) in prices while volumes increased by 2.0%
- Pricing trends were mixed within the sub-sector
 - Albemarle experienced a steep decrease in prices driven primarily by two-year low lithium spot prices
- Volume trends were as divergent as the pricing trends
 - Secular trends of clean energy, electrification and digitization continued to push sales volume for lithium
 - Volumes in other Minerals & Inorganics sub-sectors remained weak driven by a combination of factors such as oversupply in some markets (e.g. proppants) to weak end market demand (e.g. construction)

Company Name	Q1 2023 (YoY)			Q2 2023 (YoY)			Q3 2023 (YoY)			Q4 2023 (YoY)		
	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total
Albemarle Corporation	129.6%	(0.9%)	128.7%	47.3%	15.2%	62.5%	(13.6%)	25.8%	12.2%	(39.5%)	29.5%	(10.0%)
Energy Storage	301.0%	18.0%	319.0%	87.3%	36.2%	123.5%	(17.5%)	40.3%	22.8%	(50.0%)	35.0%	(15.0%)
Specialties	9.0%	(15.0%)	(6.0%)	(5.1%)	(14.6%)	(19.7%)	(13.2%)	(7.3%)	(20.5%)	(15.0%)	(2.0%)	(17.0%)
Ketjen	12.0%	(12.0%)	0.0%	11.4%	0.8%	12.2%	8.4%	1.0%	9.4%	7.0%	37.0%	44.0%
Compass Minerals International	11.1%	(17.5%)	(6.4%)	6.4%	(9.6%)	(3.2%)	1.4%	(11.4%)	(10.0%)	5.3%	(8.7%)	(3.4%)
Plant Nutrition	8.2%	(18.9%)	(10.7%)	(9.0%)	(6.0%)	(15.0%)	(21.1%)	(17.7%)	(38.8%)	(29.0%)	67.0%	38.0%
Salt	11.6%	(17.4%)	(5.8%)	12.0%	(11.0%)	1.0%	8.3%	(9.4%)	(1.1%)	10.0%	(19.0%)	(9.0%)
Minerals Technologies	9.3%	(1.3%)	8.0%	7.7%	(7.2%)	0.5%	+LSD%	Decrease	Flat	+LSD%	Increase	3.0%
Sisecam Resources	24.1%	2.1%	26.2%	Acquired by Sisecam Chemicals Wyoming in May-23			Acquired by Sisecam Chemicals Wyoming in May-23			Acquired by Sisecam Chemicals Wyoming in May-23		
U.S. Silica Holdings	21.4%	19.4%	40.8%	9.2%	(4.1%)	5.1%	(1.5%)	(10.9%)	(12.4%)	(3.7%)	(14.9%)	(18.6%)
Oil & Gas Proppants	32.8%	28.1%	60.9%	10.8%	(3.1%)	7.7%	(2.7%)	(10.7%)	(13.4%)	(8.2%)	(18.5%)	(26.7%)
Industrial & Specialty Products	17.2%	(5.7%)	11.5%	8.2%	(7.5%)	0.7%	0.8%	(11.3%)	(10.5%)	5.0%	(7.7%)	(2.7%)
Minerals & Inorganics Average	39.1%	0.4%	39.5%	17.7%	(1.4%)	16.3%	(4.6%)	1.2%	(3.4%)	(12.6%)	2.0%	(10.6%)

I would say that our growth in 2024 is going to be much less price driven than it has been in the last 2 years. We see good volume growth... Household & Personal Care staying strong, pockets of a few markets recovering from where they were in 2023. So the growth going forward, we expect to be much more volume driven.

- Erik C. Aldag, Senior VP of Finance & Treasury and CFO, Minerals Technologies

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data

Sources: Capital IQ, Company filings

(1) Effective January 1, 2023, Albemarle Corporation realigned its Lithium and Bromine segments into the Energy Storage and Specialties segments



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Specialty Chemicals

- In Q4 2023, the Specialty Chemicals sub-sector experienced an average organic decline of (6.1%) year-over-year
 - The sub-sector saw prices decrease on average by (6.3%) while volumes increased by 0.2%
- Lower input expenses and contractual pass-throughs contributed to a year-over-year reduction in the sub-sector's average selling prices
- While volumes grew 0.2% and snapped a four-quarter streak of declines, demand continues to be soft driven by end market weakness
 - Muted volumes resulted from tepid demand across electronics, personal care, construction and consumer durables markets
 - Automotive market continued to offset the softness noted in other markets, however the UAW strike had a temporary impact on auto-focused chemicals

Company Name	Q1 2023 (YoY)			Q2 2023 (YoY)			Q3 2023 (YoY)			Q4 2023 (YoY)		
	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total
Ashland	12.3%	(10.1%)	2.2%	5.1%	(20.8%)	(15.7%)	Increase	Decrease	Decrease	Flat	Decrease	(10.0%)
DuPont de Nemours	4.0%	(7.0%)	(3.0%)	2.0%	(6.0%)	(4.0%)	0.0%	(10.0%)	(10.0%)	(1.0%)	(9.0%)	(10.0%)
Electronics & Industrial	2.0%	(15.0%)	(13.0%)	0.0%	(12.0%)	(12.0%)	(1.0%)	(12.0%)	(13.0%)	(2.0%)	(5.0%)	(7.0%)
Water & Protection	6.0%	(2.0%)	4.0%	5.0%	(4.0%)	1.0%	1.0%	(9.0%)	(8.0%)	0.0%	(15.0%)	(15.0%)
Ecolab	13.0%	(1.0%)	12.0%	10.0%	(1.0%)	9.0%	7.0%	0.0%	7.0%	5.0%	1.0%	6.0%
Ecovyst	6.7%	(16.7%)	(10.0%)	(3.3%)	(15.0%)	(18.3%)	(16.1%)	(9.7%)	(25.8%)	(11.3%)	5.5%	(5.8%)
Ecoservices	6.6%	(17.1%)	(10.5%)	(5.4%)	(12.7%)	(18.1%)	(19.8%)	(4.8%)	(24.6%)	(16.6%)	5.1%	(11.5%)
Catalyst Technologies	7.4%	(14.0%)	(6.6%)	9.6%	(28.9%)	(19.3%)	4.1%	(36.1%)	(32.0%)	26.1%	7.8%	33.9%
Innospec	11.1%	(12.7%)	(1.6%)	(1.8%)	(11.8%)	(13.6%)	(7.3%)	0.8%	(6.5%)	(5.4%)	1.7%	(3.7%)
Performance Chemicals	6.0%	(13.0%)	(7.0%)	(8.0%)	(16.0%)	(24.0%)	(19.0%)	7.0%	(12.0%)	(14.0%)	6.0%	(8.0%)
Fuel Specialties	22.0%	(20.0%)	2.0%	3.0%	(16.0%)	(13.0%)	(4.0%)	(4.0%)	(8.0%)	(4.0%)	0.0%	(4.0%)
Quaker Chemical Corporation	19.0%	(11.0%)	8.0%	11.0%	(10.0%)	1.0%	2.0%	(4.0%)	(2.0%)	(4.0%)	(1.0%)	(5.0%)
Stapan Company	12.0%	(14.0%)	(2.0%)	(4.0%)	(19.0%)	(23.0%)	(16.0%)	(9.0%)	(25.0%)	(21.0%)	3.0%	(18.0%)
Polymers	8.0%	(18.0%)	(10.0%)	(3.0%)	(29.0%)	(32.0%)	(12.0%)	(12.0%)	(24.0%)	(15.0%)	10.0%	(5.0%)
Surfactants	14.0%	(13.0%)	1.0%	(5.0%)	(15.0%)	(20.0%)	(17.0%)	(7.0%)	(24.0%)	(22.0%)	1.0%	(21.0%)
Specialty Products	19.8%	(7.0%)	12.8%	0.0%	(16.0%)	(16.0%)	(8.0%)	(28.0%)	(36.0%)	(10.0%)	(27.0%)	(37.0%)
Specialty Chemicals Average	11.1%	(10.4%)	0.7%	2.7%	(11.9%)	(9.2%)	(5.1%)	(5.3%)	(10.4%)	(6.3%)	0.2%	(6.1%)

There are still some difficult situations with raw materials... you saw the CPI numbers that came out yesterday. We are still seeing some inflationary problems in the marketplace. But overall, I think that we've filtered through most of the high-cost inventory.

- Patrick S. Williams, President & CEO, Innospec

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data

Sources: Capital IQ, Company filings



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Titanium Dioxide

- Two of the four companies we track have not reported results for Q4 2023
- That said, prices in the sector continue to be under pressure and declined (8.5%) on average during the quarter
- Volumes in TiO2 showed clear positive momentum and were up 17.8% on average
 - With the destocking process of TiO2 seemingly finished and customer inventories standing at record lows, a robust demand for TiO2 is projected for 2024

Company Name	Q1 2023 (YoY)			Q2 2023 (YoY)			Q3 2023 (YoY)			Q4 2023 (YoY)		
	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total
The Chemours Company	5.5%	(17.5%)	(12.0%)	2.0%	(15.8%)	(13.8%)	(1.2%)	(14.6%)	(15.8%)	Delayed Reporting Financial Results		
Titanium Technologies	4.0%	(35.0%)	(31.0%)	0.0%	(27.0%)	(27.0%)	(3.0%)	(18.0%)	(21.0%)			
Thermal & Specialized Solutions	5.0%	10.0%	15.0%	2.0%	(1.0%)	1.0%	(1.0%)	5.0%	4.0%			
Advanced Performance Materials	10.0%	(7.0%)	3.0%	7.0%	(9.0%)	(2.0%)	2.0%	(26.0%)	(24.0%)			
Kronos Worldwide	4.0%	(29.0%)	(25.0%)	(2.0%)	(26.0%)	(28.0%)	(8.0%)	(6.0%)	(14.0%)	(11.0%)	29.0%	18.0%
Tronox Holdings	3.5%	(28.8%)	(25.3%)	(0.3%)	(15.9%)	(16.2%)	(6.6%)	(20.8%)	(27.4%)	(6.0%)	6.7%	0.7%
TiO2	3.0%	(30.0%)	(27.0%)	1.0%	(22.0%)	(21.0%)	(5.0%)	(14.0%)	(19.0%)	(6.0%)	14.0%	8.0%
Zircon	10.0%	(43.0%)	(33.0%)	7.0%	(21.0%)	(14.0%)	(3.0%)	(71.0%)	(74.0%)	(11.0%)	(26.0%)	(37.0%)
Venator Materials	3.2%	(32.2%)	(29.0%)	Filed for bankruptcy in May-23			Filed for bankruptcy in May-23			Filed for bankruptcy in May-23		
Titanium Dioxide	0.0%	(34.0%)	(34.0%)									
Performance Additives	14.0%	(26.0%)	(12.0%)									
Titanium Dioxide Average	4.0%	(26.9%)	(22.9%)	(0.1%)	(19.2%)	(19.3%)	(5.3%)	(13.8%)	(19.1%)	(8.5%)	17.8%	9.4%

We expect 2024 to see a reversal of several of the trends for the last 18 months. On the market, we've already begun to see a pickup in demand for TiO2 that is more positive than we would see normally at this time of year... We expect TiO2 pricing to reverse its downward trend and improve as we move through 2024.

- John D. Romano, Co-CEO & Director, Tronox Holdings

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Summary

- With a fourth straight quarter of organic sales decline, conditions in the Chemicals & Specialty Materials industry remain challenging
- The observed trends reflect a complex interplay of market forces, regulatory impacts and strategic company actions
 - While prices have trended lower due to various pressures, volume declines, in some sub-sectors at least, have hopefully bottomed
- In addition, anecdotal evidence gives us some cause for “optimism”
 - Conversations with industry participants since the beginning of the year point to some volume stability, and dare we say it, growth
 - There has been a slight uptick in M&A activity
- Overall, we are cautiously optimistic about the rest of the year and believe that companies that continue to adapt to market dynamics, invest in innovation and focus on opportunistic / strategic expansion are likely to navigate these challenges more effectively

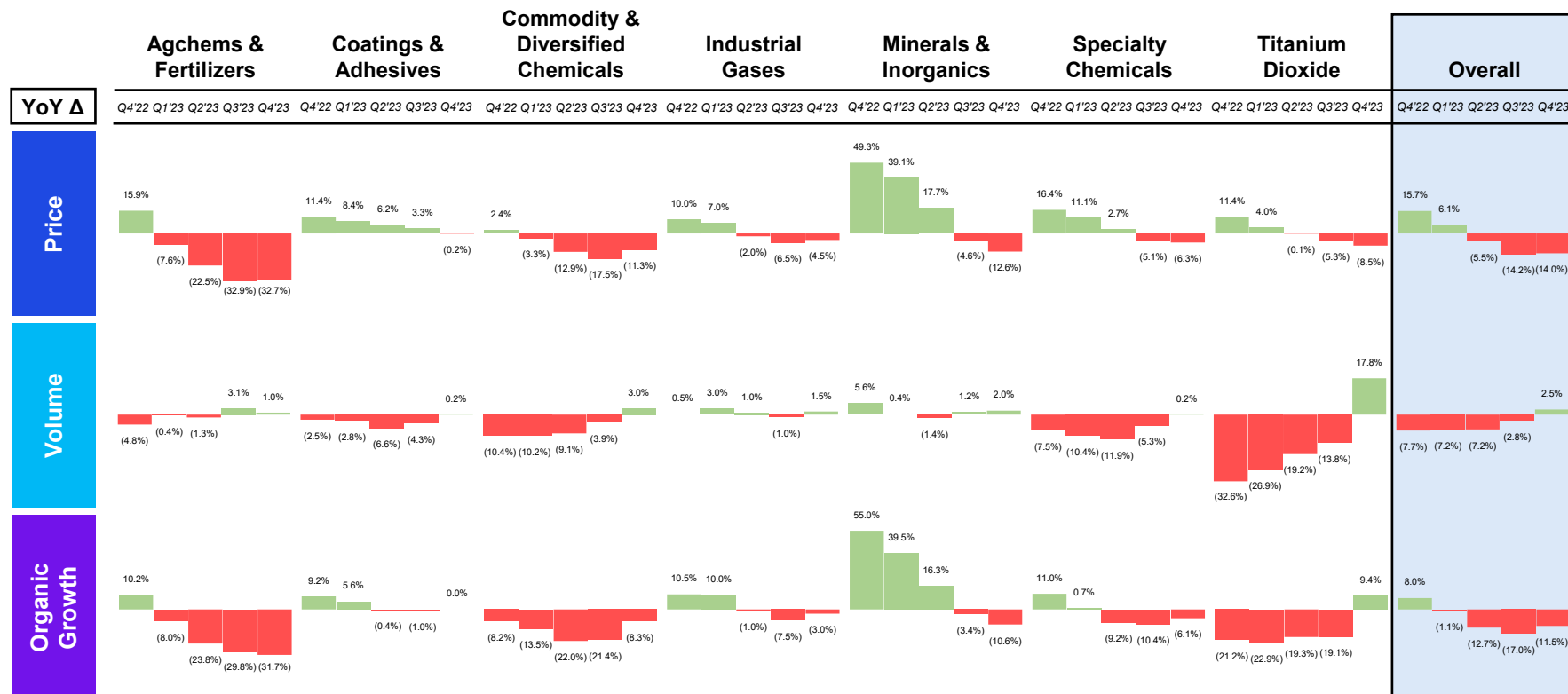


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Appendix

Chemicals & Specialty Materials Earnings Summary



Sources: Capital IQ, Company filings



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